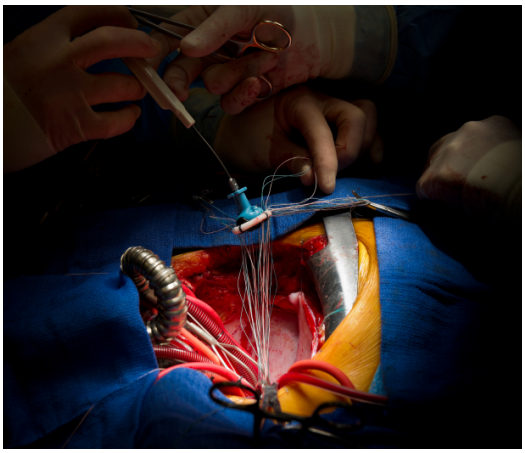
Mitral Valve Clip for Degenerative Mitral Regurgitation

Who Might Benefit?

Mitral regurgitation, also called mitral insufficiency, is the most common heart valve disorder, where the heart valve that separates the upper and lower chambers on the left side of the heart does not close properly. The condition causes a backward flow of the blood in the heart and may raise the risk of irregular heartbeat, stroke, and heart failure. Significant (moderate or severe) mitral regurgitation occurs in approximately 2% of the population and its frequency increases with age. If untreated, the condition can be debilitating and fatal.



Current Practice

The choice of treatment depends on the symptoms, severity of the condition, and its effect on the heart's function. In milder cases of mitral regurgitation, the use of medication can help to ease disease symptoms. In more severe cases, however, heart surgery to repair or replace the valve is the treatment of choice. Although open heart surgery has a very good success rate, it may not be suitable for patients who are at high risk of developing surgical complications, such as patients who may be too ill or too frail to survive open heart surgery.

> A new catheter-based, less invasive approach to mitral heart valve repair

What's New?

The MitraClip device is a new catheter-based, less invasive approach to mitral valve repair that can provide an alternative option for patients with severe mitral regurgitation who are too high risk to undergo surgery. The device is inserted using a long, flexible, soft plastic tube (catheter) through a small incision in the groin area and delivered into the heart through the femoral (leg) vein. After positioning the clip in the region of the mitral valve, the catheter is removed. The procedure is performed under general anesthesia.

Potential Advantages

In a catheter-based percutaneous intervention, the mitral valve is repaired without the need for an invasive surgical procedure. The existing scientific evidence suggests that this procedure can be a safer approach than open heart surgery, especially for high-risk patients. It can also be considered as a preferred option by the patients who seek a less invasive treatment option. The device allows the heart to pump blood more efficiently by improving valve closure. As a result, the procedure can relieve the symptoms of mitral regurgitation and improve quality of life. In the recent clinical studies, patients who underwent percutaneous mitral valve repair interventions experienced shorter recovery times and a shorter hospital stay (two to three days).